

ABSTRACT OF THE DISCLOSURE

A DC-DC converter achieves a high level of a signal superimposed in an AC manner onto the output of an insulator such as a photocoupler, and there are very few limitations in the aspects of constant design, phase correction, starting characteristics, and short-circuit protection. A secondary-side control circuit detects an output voltage, and feeds back a control signal to a drive control circuit on the primary side via a photocoupler. The photocoupler insulates the primary side of a DC-DC converter from the secondary side thereof, wherein the control signal output from the secondary-side control circuit is transmitted to the primary side. The output signal of an auxiliary power-supply circuit is superimposed in an AC manner onto the control signal via a coupling capacitor. The drive control circuit has a configuration in which a pulse control signal is applied to a switching element in order to stabilize the output voltage of a secondary-side circuit on the basis of the control signal.